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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,852	01/17/2002	Michael Neal Blackburn	P50438D2	2915

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EXAMINER	
DUFFY, PATRICIA ANN	
ART UNIT	**PAPER NUMBER**
1645	

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/051,852	BLACKBURN ET AL.	
	Examiner	Art Unit	
	Patricia A. Duffy	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2004 and 01 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6,7,10 and 39-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6,7,10 and 39-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1-17-02* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

RESPONSE TO AMENDMENT

The response and amendment to the specification filed 9-23-04 have been entered into the record. The amendment to the claims filed 2-1-05 has been entered into the record. 1, 2, 6, 7, 10 and 39-43 are pending and under examination.

The text of Title 35 of the U.S. Code not reiterated herein can be found in the previous office action.

Rejections Withdrawn

Claims 1, 2, 6, 7, 10 and 39-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is withdrawn in part only.

As to claim 1 and every claim dependent thereon (2, 6, 7, 10 and 39-43), the specification as filed only provides for conception of the combination of administering in an effective does of an anti-coagulation factor IX/IXa monoclonal antibody having self-limiting neutralizing activity is withdrawn in view of Applicants' amendment to the claim.

As to claim 42, there is no conception antibody epitopes that is located within residues 3-11 of Factor IX is withdrawn in view of Applicants' amendment to the claim.

Claims 1, 2, 6, 7, 10 and 39-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in part.

As to claim 1 and every claim dependent thereon, the claim is confusing in regard to the language anti-coagulation factor IX/IXa monoclonal antibody because it is unclear whether the antibody binds factor IX, Factor IXa or both is withdrawn in view of the clarification for the record.

As to claim 42, the claim recites "wherein the epitope is located within residues 3-11 of the gla domain of Factor IX" is withdrawn in view of Applicants showing that the metes and bounds of the gla domain of Factor IX was known to the art.

Rejections Maintained

Double Patenting

Claims 1, 2, 6, 7, 10 and 39-43 of this application conflict with claims 1-12 of Application No. 10/430,176. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Applicants are have not addressed this issue and present no good and sufficient reasons and are therefore non-responsive on this issue.

Claims 1, 6 and 7 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 6, 7 and 8, of copending Application No.10/430,176. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. Applicants argue that the rejections should fall in view of MPEP 8220.1. This is not persuasive; the provisional rejections are not the only rejections remaining and are therefore maintained for reasons made of record in the Office Action mailed 3-19-04.

Claims 2, 10 and 39-43 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3, 5-8 and 12 of copending Application No. 10/430,176. Applicants argue that the rejections should fall in view of MPEP 8220.1. This is not persuasive; the provisional rejections are not the

only rejections remaining and are therefore maintained for reasons made of record in the Office Action mailed 3-19-04.

Claims 1, 6 and 7 are directed to the same invention as that of claims 6-8 of commonly assigned 10/430,176. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved. Applicants are fully non-responsive on this issue. *Failure to address this issue in the next response will result in an immediate holding of abandonment of this application.*

Claims 1, 2, 6, 7, 10, and 39-43 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter is maintained for reasons made of record in the Office Action mailed 3-19-04. Applicants are fully non-responsive on this issue. *Failure to address this issue in the next response will result in an immediate holding of abandonment of this application.*

Claims 41 and 43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is maintained for reasons made of record in the Office Action mailed 3-19-04.

As to claim 41, there is no conception of a subgenus of monoclonal antibodies that bind Factor IX gla domain. The specification at page 60, teaches that the BC2 antibody binds to an epitope contained within residues 3-11 of the Factor IX gla domain. The newly recited subgenus of binding any portion of Factor IX gla domain lacks conception as filed in this application. Applicants argue that the localization of the precise binding site of one or more of the anti-coagulation factor IX/Ixa antibodies to an epitope or epitopes within

the gla domain would lead one skilled in the art to appreciate that the inventors were in possession of the invention as claimed in claim 41. This is not persuasive; Applicants misrepresent the teachings of the specification. The specification teaches a single antibody that binds residues 3-11 of the gla domain. There is a single antibody described binding a single epitope within the gla domain see specification at page 60. There is no conception of gla binding antibodies outside of this specific domain. Thus, Applicants claim recites new matter because the very limited epitope disclosed does not convey possession of other epitopes within the gla domain outside of residues 3-11. Applicants have not provided any citation of relevant passages where conception of the new genus as now claimed can be found, but merely asserts that one skilled in the art would recognize they were in possession of the now claimed invention. Written description of a single epitope bound by a single antibody does not provide conception of antibodies binging other gla epitopes as asserted by Applicants. There is no extrinsic evidence of record that any of the other disclosed antibodies bind a gla epitope that is not 3-11 as described at page 60 for the BC2 antibody such that the breadth is inherently supported by the binding function of the other described antibodies. To satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention and that the invention, in that context, is whatever is now claimed. See MPEP 2163.02. Also, the failure to meet the written description requirement under 35 USC 112, first paragraph arises when the claims are changed after the filing date to change the scope of the disclosure, which does encompass setting forth subgeneric claims (see MPEP 2163.05). These subgeneric claims are not conveyed by the limited description of a single epitope within the gla domain on page 60. The rejection is maintained.

As to claim 43, it is not apparent that this limitation "wherein the antibody has a binding affinity of at least 4 nM" resides in the specification as filed. Applicants pointed to page 57, line 17-18. This is not persuasive, it only provides conception for the

SB249417 having the specific affinity of 4 nM and only teaches this in relationship to factor IX not IXa as recited in the claims. Again, the amendment broadens the scope of the disclosure. The disclosure of a single antibody binding to a single antigen with a particular affinity does not support the subgeneric claim recited herein because it does not support factor IXa binding nor does it support antibodies with 4 nM bind affinity to different epitopes than that particularly bound by the SB249417 antibody. The Table cited by Applicants does not convey a broad disclosure of antibodies in general binding at the claimed affinity and does not support binding to factor IXa. As such, the passage does not support the now broadly claimed invention. One of skill in the art would not recognize it to represent a broad class of invention because antibodies have a wide variety of binding affinities from mM to pM, bind different epitopes and there is no disclosure of different antibodies with the same affinity binding different epitopes. As such, the limited description does not convey conception of the broad genus now claimed.

Claims 1, 2, 6, 7, 10 and 39-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1 and every claim dependent thereon, the phrase "effective dose" is maintained because the dosage limitation is not recited in the body of the claim and an "effective dose" may conceivably be one that binds the target antigen. Thus, it is not still clear from the claim construction what effect is achieved by the amount. Effect is a result effected variable and the body of the claim does not recite the effect of the dose.

As to claims 6 and 7, the claims re rendered indefinite from the use of the term "... the monoclonal antibody has the identifying characteristics of..." is maintained for reasons made of record. Applicants indicate that given the wealth of information on the recombinant antibodies in the specification one skilled in the art would have no trouble appreciating the identifying characteristics of the antibodies. This is not persuasive; the

limitations of the specification are never read into the claims. The claims define the invention and these claims do not set forth the metes and bounds of the characteristics such that the skilled artisan would know if they were infringing the claim or not.

As to claim 41, the claim recites "an epitope of the Factor IX gla domain". The specification fails to set forth epitopes of the Factor IX gla domain and fails to teach the metes and bounds of the Factor IX gla domain is maintained for the reasons made of record. Applicants assert that the art teaches the gla domain and provides a reference. This is not persuasive, the art does not teach the epitopes, nor does it convey which are residues constitute an epitope and which ones do not.

Claim Rejections - 35 USC § 102 and 103

Claims 1, 6, 7, 10, 39 and 40 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Griffin et al, U.S. Patent No. 5,679,639, issued October 21, 1997, filed August 22, 1994 with full priority to November 18, 1991 is maintained for reasons made of record in the Office Action Mailed 3-19-04.

Applicants' arguments have been carefully considered but are not persuasive. Applicants argue that Griffen et al does not teach the property of "self-limiting neutralizing activity". It is noted that the antibodies of the specification neutralize Factor IX/IXa by virtue of binding the coagulation factor. It is noted that antibodies by virtue of their structure are naturally self-limiting in view of the fact that when they bind their cognate antigen (Factor IX/IXa) that they cannot neutralize unlimited amounts of Factor IX/IXa because they only have limited binding capacity. As such, all factor IX/IXa binding antibodies have self-limiting neutralizing activity. The feature is an inherent part of the antibody structure.

Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al, U.S. Patent No. 5,679,639, issued October 21, 1997, filed August 22, 1994 with full

priority to November 18, 1991 in view of Cheung et al (Thrombosis Research, 81(1): 65-73, 1996) is maintained for reasons made of record in the Office Action Mailed 3-19-04.

Applicants' arguments have been carefully considered but are not persuasive. Applicants argue that since griffin et al fails so to does the rejection based on Griffen et al. This is not persuasive, Griffen et al does not fail for the reasons set forth above.

Status of Claims

Claims 1, 2, 6, 7, 10 and 39-43 stand rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia A. Duffy whose telephone number is 571-272-0855. The examiner can generally be reached on M-Th 6:30 am - 6:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette Smith can be reached on 571-272-0864.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Patricia A. Duffy

Primary Examiner

Art Unit 1645